

LISTING OF THE CLAIMS

1. (Currently Amended) A tissue repair implant comprising:
a tissue carrier matrix comprising a plurality of biocompatible, bioresorbable granules and at least one tissue fragment in association with the tissue carrier matrix, the at least one tissue fragment having an effective amount of viable cells that can migrate out of the tissue fragment and populate the tissue carrier matrix, and wherein the tissue carrier matrix is in the form of an injectable suspension, and wherein an average maximum outer diameter of the granules is in a range of about 150 to about 600 μm .
2. (Cancelled)
3. (Original) The implant of claim 1, wherein the at least one tissue fragment is obtained from a connective tissue type selected from the group consisting of cartilage, meniscus, tendon, ligament, dermis, bone, fat, and combinations thereof.
4. (Original) The implant of claim 1, wherein the at least one tissue fragment comprises autogeneic tissue, allogeneic tissue, xenogeneic tissue, and combinations thereof.
5. (Original) The implant of claim 1, wherein the at least one tissue fragment has a particle size in the range of about 0.1 to about 2 mm^3 .
6. (Original) The implant of claim 1, wherein the granules comprise a biocompatible material selected from the group consisting of aliphatic polyesters, copoly(ether-esters), solid copolymers of fatty acid esters of glycerol and succinic acid, polyoxaesters, collagen, gelatin, albumin, hyaluronate, glucosaminoglycans, polyanhydrides, polyphosphazines, subintestinal mucosa, acellular tissues, and combinations thereof.
7. (Original) The implant of claim 6, wherein the granules comprise an aliphatic polyester selected from the group consisting of homopolymers or copolymers of lactides, glycolides, ϵ -

caprolactone, p-dioxanone (1,4-dioxan-2-one), trimethylene carbonate (1,3-dioxan-2-one), and combinations thereof.

8. (Cancelled)

9. (Original) The implant of claim 1, wherein the granules are porous.

10. (Original) The implant of claim 1, wherein the granules have a surface roughness to facilitate attachment to tissue.

11. (Original) The implant of claim 1, further including a binding agent in association with the tissue carrier matrix.

12. (Original) The implant of claim 11, wherein the binding agent is selected from the group consisting of shark cartilage, alginate, hyaluronic acid, collagen gel, fibrin glue, fibrin clot, poly(N-isopropylacrylamide), agarose, chitin, chitosan, cellulose, polysaccharides, poly(oxyalkylene), a copolymer of poly(ethylene oxide)-poly(propylene oxide), poly(vinyl alcohol), polyacrylate, platelet rich plasma (PRP) clot, platelet poor plasma (PPP) clot, Matrigel, blood clot, gelatin-resorcin-formalin adhesives, mussel-based adhesives, dihydroxyphenylalanine (DOPA) based adhesives, transglutaminase, poly(amino acid)-based adhesives, cellulose-based adhesives, polysaccharide-based adhesives, synthetic acrylate-based adhesives, liquid and semi-solid fatty acid esters of glycerol and succinic acid (MGSA), MGSA/polyethylene glycol (MGSA/PEG) copolymers, polyvinylpyrrolidone (PVP), PVP copolymers, gelatin, albumin, monoglycerides, diglycerides, triglycerides laminin, elastin, proteoglycans, and combinations thereof.

13. (Original) The implant of claim 11, further including a curing agent that crosslinks the binding agent to enable the implant to set.

14. (Original) The implant of claim 13, wherein the curing agent is selected from the group consisting of thrombin, calcium, divinyl sulfone (DVS), polyethylene glycon divinyl sulfone

(VS-PEG-VS), hydroxyethyl methacrylate divinyl sulfone (HEMA-DIS-HEMA), formaldehyde, glutaraldehyde, aldehydes, isocyanates, alkyl and aryl halides, imidoesters, N-substituted maleimides, acylating compounds, carbodiimide, hydroxychloride, N-hydroxysuccinimide, light, pH, temperature, metal ions, and combinations thereof.

15. (Original) The implant of claim 1, wherein the tissue carrier matrix further includes at least one biological component.

16. (Original) The implant of claim 15, wherein the at least one biological component is selected from the group consisting of antibiotics, antimicrobial agents, anti-inflammatory agents, growth factors, growth factor fragments, small-molecule wound healing stimulants, hormones, cytokines, proteins, peptides, antibodies, enzymes, isolated cells, platelets, glycosaminoglycans, immunosuppressants, nucleic acids, analgesics, cell types, viruses, virus particles, and combinations thereof.

17. (Original) The implant of claim 16, wherein the at least one biological component comprises platelets, and further includes an activator of platelets.

18. (Original) The implant of claim 17, wherein the activator of platelets is selected from the group consisting of thrombin, calcium, adenosine di-phosphate (ADP), collagen, epinephrine, arachidonic acid, prostaglandin, ristocetin, retinoids, ascorbate, antioxidants, and combinations thereof.

19. (Original) The implant of claim 15, wherein the at least one biological component is a cell type, and

further wherein the cell type is selected from the group consisting of osteocytes, fibroblasts, stem cells, pluripotent cells, chondrocyte progenitors, chondrocytes, osteocytes, osteoclasts, osteoblasts, endothelial cells, macrophages, adipocytes, monocytes, plasma cells, mast cells, umbilical cord cells, leukocytes, stromal cells, mesenchymal stem cells, epithelial cells, myoblasts, tenocytes, ligament fibroblasts, and bone marrow cells.

20. (Original) The implant of claim 15, wherein the at least one biological component is contained within the granules.

21. (Original) The implant of claim 15, wherein the at least one biological component is contained within a coating covering the granules.

22-43. (Canceled)